

Washington, D.C.

DRAFT
DOE P XXX.X

Approved: X-XX-03

SUBJECT: CLEANUP DRIVEN BY RISK BASED END STATES

PURPOSE AND SCOPE: The purpose of this policy is to ensure that the Department focuses our cleanup efforts on achieving clearly defined, risk-based end states. The Department of Energy is striving to improve the effectiveness of its cleanup program. The single most significant change that we can make is to focus the program on goals that are clearly articulated and technically defensible and achievable. Those goals must be grounded in where we want to be at the end of the cleanup effort, and not on interim milestones or conditions that are continually subject to change. With this approach we can resolutely pursue environmental protectiveness through cleanup.

When the drive to achieve risk-based end states characterizes the Department's site assessment, remedy selection and actions to assure long-term protectiveness, the cleanup program will complete its work quicker, safer, and more efficiently. It is intended that this approach apply to all sites currently undergoing clean up. The approach may cause a re-evaluation of, and changes to, current regulatory agreements/documents (such as Federal Facility Agreements) and compliance agreements. Each site will have to update site cleanup baselines and Performance Management Plans to reflect the risk-based end state vision of the site. The resulting changes will enable the Department to accelerate clean up, and achieve conditions that enable sustained protection of human health and the environment.

BACKGROUND: The Department's *Top-to-Bottom Review* (February, 2002) found that the nation's twelve year investment in the cleanup program had achieved little real risk reduction. The *Review* noted that the Department's cleanup program has been focused on, and driven by, achieving compliance with regulatory requirements in an approach that can best be described as piece meal and iterative. In addition, current regulatory requirements can be inconsistent, contradictory and/or duplicative.

The *Review* also noted that the Department, its contractors, its regulators and other stakeholders had rightly sought concurrence on remedial action through the use of Federal Facility Agreements. However, those regulatory agreements and the associated compliance milestones were generally established prior to an adequate understanding of the nature of the risks and hazards at the site. Thus, initial and subsequent agreements contained cleanup goals that were typically based on interim milestones and rarely articulated or pursued action that attained safe cleanup in a business-like and efficient manner. In addition, the Department's cleanup decisions or approaches were not adequately integrated with decisions about the future use of the facilities and property.

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Over the past decade, the Department, its regulators and stakeholders, have gained a better understanding of the future use of the facilities and property currently under cleanup. Even broader, the environmental industry and its regulators have matured towards a better science based understanding of contaminant fate and transport and the real risks posed by contaminants. The result is that acceptable cleanup strategies are evolving with goals for cleanup and contaminant containment and there is better understanding and acceptance of what DOE can reasonably achieve.

Cleanup targets have changed as more information about risk assessment and a better understanding of the site hazards has evolved. This same learning curve has caused the U.S. Environmental Protection Agency to initiate policy changes that are consistent with the new information. These include Risk-Based Corrective Action, Brownfields, and the One Cleanup Program Initiative. Like those policy changes and initiatives, this policy is an attempt to improve the efficiency of the cleanup program while clearly committing to close the sites in a manner that is protective.

In summary a lack of effective cleanup and lack of trust has been generated by diverse but applicable regulatory regimes, the absence of a clearly articulated corporate approach by DOE to its cleanup mission, the failure to adequately link remedies with future land use, and insufficient methods to assure the performance of remedies. A focused and rigorous effort by the Department, its regulators and stakeholders, is needed to clearly define and articulate end states based on risk.

POLICY: Each site currently undergoing clean up shall formulate a risk-based end state vision in consultation with regulators, stakeholders, and Tribal Nations. That vision shall be accompanied by a strategy to integrate and relate that vision to the regulatory environment in which they are operating. Sites should set the risk-based end-state vision, then redesign their clean up activities to achieve that vision. The purpose is to “do it right and completely the first time,” rather than establishing interim steps to un-defined end states or by designing remedies that either don’t meet the goal or unnecessarily exceed it.

Efforts to develop and achieve risk-based end states must consider the following requirements:

- C The Department will comply with the requirements of the nation’s environmental laws and regulations. However, the requirement to develop and achieve risk-based end states will drive the Department’s compliance strategy.
- C End states, including the selected remedies, must be based on an integrated site-wide perspective (including the current and future use of surrounding land), rather than on isolated operable units or release sites.
- C End states must be focused on protecting the relevant receptors based on the intended land use. Sites must document the final anticipated risk-based condition that drive a cleanup decision or activity.

- C Sites must consider the interim risks to the public, workers, and the environment in the selection of actions required to achieve end states. Ecosystem health should not be endangered nor should workers be asked to conduct cleanup activities that result in little or no reduction in risk to the public or the environment.
- C Where contaminants are expected to persist but can be isolated, risk concepts should include effective and transparent institutional controls to maintain isolation. Long term monitoring and surveillance methods must be designed to assure that the contaminants remain sequestered and human health and the environment are protected.
- C Stakeholders and regulators must be consulted in the actions needed to develop and achieve risk-based end states.
- C End states must address how we are to manage the impacts of future risks and vulnerabilities, including the creation of contingency plans in the event that site conditions change after clean up is completed.

IMPLEMENTATION: This policy requires the Department to re-evaluate our cleanup activities. We must ensure that our actions are both realistic and appropriate for the end state conditions we are striving to achieve. Sites are expected to use risk-based principles to reformulate the cleanup strategy for their sites and to seek the active concurrence and support of regulators and public who will benefit from earlier risk reduction and completion. In some cases, this approach may cause a re-evaluation of, and changes to, current regulatory agreements (such as Federal Facility Agreements) by working with regulators and public.

The Department's sites are at different stages in their cleanup efforts and are applying a variety of approaches to developing and achieving risk-based goals. Consequently, defining or redefining the end state for some sites may be difficult. The Department will issue guidance that describes how a risk-based, end state vision should be constructed and what it should contain. Sites will need to assess their current approach and the level of compliance with this policy and the guidance in a rigorous manner. That assessment will serve as the initial step for a dialogue with the regulators and stakeholders on setting and utilizing risk-based end states for cleanup decisions.

The Department will develop a corporate strategy to ensure implementation of this policy. The corporate strategy will describe how to revise site baselines and the associated Performance Management Plans using the site-specific risk-based end state visions. Where past regulatory agreements conflict with risk-based end state goals, sites are expected to develop a strategy to renegotiate these agreements and/or milestones. Finally, the Department will identify barriers to developing and achieving end-state visions and develop tools to address them.